CLAIMS

1. A method for determining imaging errors of an optical system in the production of a mask for semiconductor component fabrication, the method comprising:

a) detecting at least one parameter for the characterization of the mask,

b) automatically selecting a stored correction data record from a correction database in a manner dependent on said at least one parameter for the characterization of the mask,

c) measuring optical properties of a structure of the maskusing a measuring system,

d) combining measurement results associated with the measured optical properties with the correction data record associated with the mask in a data processing device to produce a corrected measurement result, and

e) storing a measurement data record with the corrected measurement result in a database system.

2. The method according to Claim 1, wherein the parameter for the characterization of the mask is the wavelength at which the mask is used in a photolithography method.

3. The method according to Claim 1, wherein the parameter for the characterization of the mask is a substance property of the mask.

4. The method according to Claim 1, wherein the correction data record includes information for the correction of inhomogeneities of a radiation source, of the measuring system, in particular of at least one of an associated CCD chip and an optical element.

5. The method according to Claim 4, wherein the optical element comprises a lens.

6. The method according to Claim 1, wherein the parameter for the characterization of the mask is identified by an identification means.

7. The method according to Claim 6, wherein the identification means comprises a bar code.

8. The method according to Claim 1, wherein at least one of CD values and positional errors are determined by the measuring system as said measured optical properties of the mask.

9. A device for determining imaging errors of an optical system in the production of a mask for semiconductor component fabrication, the device comprising:

a means for detecting at least one parameter for the characterization of mask,

a correction database with at least one stored correction data record,

a data processing means for automatically selecting a correction data record from the correction database in a manner dependent on said at least one parameter for the characterization of the mask,

a measuring system for determining optically measurable properties of the mask,

means for combining measurement results of the optically measurable properties of the mask with the correction data record associated with the mask to produce a corrected measurement result, and means for generating a measurement data record with the corrected measurement result in a database system.

10. The device according to Claim 9, wherein said measuring system includes means for measuring at least one of CD dimensions, and positional errors of one of a CoG mask and a phase shift mask.

11. The device according to Claim 9, wherein the mask is designed for wavelengths of 365nm, 248nm, 193nm or 157nm.